Amendments to the Claims:

1. (canceled)

2. (currently amended) ~~The mechanism of claim 1~~ A fire door lock mechanism comprising

a first opening unit located within a fire door and coupled to an opening member mounted on a surface of the fire door for operating a lock bolt of a lock bolt mount that is disposed within the first opening unit to allow the fire door lock mechanism to enter a released or engaged state; and

a second opening unit mounted on an opposite surface of the fire door corresponding in position to the opening member, wherein the second opening unit comprises;

a base plate;

a handlebar capable of being pressed to move relative to the base plate;

two actuators rotatably disposed inside the handlebar and bent to form a central portion and two end portions, each of the portions being formed with a hole;

two second horseshoes provided at two bottom ends of the handlebar respectively, each of the second horseshoes being formed with a hole at the bottom end thereof for accommodating a pin inserted into the hole of one end portion of a respective corresponding one of the actuators;

two first horseshoes provided at two ends of the base plate respectively, each of the first horseshoes being formed with a hole at the top end thereof for accommodating a pin inserted into the hole of the central portion of a respective corresponding one of the actuators;

a push rod, each end of the push rod being provided with a pin for coupling the hole of the other end portion of a respective corresponding one of the actuators; and

a swing arm coupled to an end of the push rod and extended to the inside of the fire door, the swing arm being driven by a motion of the push rod coupled to the handlebar to operate the lock bolt and allow the fire door lock mechanism to enter the

corresponding released or engaged state, wherein

the actuators, the first horseshoes, the second horseshoes and the push rod are configured such that when the second horseshoes receive a force from the handlebar and move downwardly accordingly, the actuators swing about the first horseshoes as pivots, to thereby induce a horizontal movement of the push rod, wherein

the opening member is a rotational handle coupled to a rotation member which is mounted inside the fire door and comprises an upper disk and a lower disk, the upper and lower disks being used to rotate an upper rotatable plate and a lower rotatable plate each being provided with an ~~aim~~ arm used to drive the lock bolt mount to move horizontally.

3 - 4. (canceled)

5. (currently amended) The mechanism of claim ~~1~~ 2, wherein ~~the~~ each actuator is bent at a right angle to form the central portion and the end portions.

6. (canceled).

7. (currently amended) The mechanism of claim ~~1, wherein~~ 2, further comprising a link arm has one end coupled to an end of the push rod and the other end coupled to the swing arm, so as to receive the motion of the push rod and generate a horizontal force to induce the swing arm to generate a ~~swine~~ swing motion.

8. (previously presented) The mechanism of claim 7, wherein the link arm and the swing arm are accommodated in a lock cover mount, and the swing arm is connected to the lock cover mount by a pin to generate the swing motion.

9. (currently amended) ~~The mechanism of claim 8~~ A fire door lock mechanism comprising

a first opening unit located within a fire door and coupled to an opening member mounted on a surface of the fire door for operating a lock bolt of a lock bolt mount that is disposed within the first opening unit to allow the fire door lock mechanism to enter a released or engaged state; and

a second opening unit mounted on an opposite surface of the fire door corresponding in position to the opening member, wherein the second opening unit comprises:

a base plate;

a handlebar capable of being pressed to move relative to the base plate;

two actuators rotatably disposed inside the handlebar and bent to form a central portion and two end portions, each of the portions being formed with a hole;

two second horseshoes provided at two bottom ends of the handlebar respectively, each of the second horseshoes being formed with a hole at the bottom end thereof for accommodating a pin inserted into the hole of one end portion of a respective corresponding one of the actuators;

two first horseshoes provided at two ends of the base plate respectively, each of the first horseshoes being formed with a hole at the top end thereof for accommodating a pin inserted into the hole of the central portion of a respective corresponding one of the actuators;

a push rod, each end of the push rod being provided with a pin for coupling the hole of the other end portion of a respective corresponding one of the actuators;

a swing arm coupled to an end of the push rod and extended to the inside of the fire door, the swing arm being driven by a motion of the push rod coupled to the handlebar to operate the lock bolt and allow the fire door lock mechanism to enter the corresponding released or engaged state; and

a link arm having one end coupled to an end of the push rod and the other end coupled to the swing arm, wherein

the actuators, the first horseshoes, the second horseshoes and the push rod are configured such that when the second horseshoes receive a force from the handlebar

and move downwardly accordingly, the actuators swing about the first horseshoes as pivots, to thereby induce a horizontal movement of the push rod, and the link arm receives the motion of the push rod and generates a horizontal force to induce the swing arm to generate a swing motion, wherein the link arm and the swing arm are accommodated in a lock cover mount, and the swing arm is connected to the lock cover mount by a pin to generate the swing motion, wherein

the end of the link arm, coupled to the swing arm, is formed with a bent portion bent ~~by~~ at a right angle, and a hole is formed at the bottom of the bent portion and accommodates a pin connected to a hole located at a central position of the swing arm and further connected to a slot of the lock cover mount.

10. (currently amended) The mechanism of claim ~~8~~ 9, wherein the swing arm ~~is formed with~~ has a hole for accommodating a pin which is coupled to a hole of the lock cover mount, such that the pin serves as a pivot for allowing the swing arm to be induced ~~b~~ by the link arm and generate the swing motion.

11. (currently amended) The mechanism of claim ~~8~~ 9, wherein a hole is formed at the bottom of the swing arm for accommodating a pin used to secure a pulley to the bottom of the swing arm.

12. (currently amended) ~~The mechanism of claim 1~~ A fire door lock mechanism comprising

a first opening unit located within a fire door and coupled to an opening member mounted on a surface of the fire door for operating a lock bolt of a lock bolt mount that is disposed within the first opening unit to allow the fire door lock mechanism to enter a released or engaged state; and

a second opening unit mounted on an opposite surface of the fire door corresponding in position to the opening member, wherein the second opening unit comprises:

a base plate;

a handlebar capable of being pressed to move relative to the base plate;

two actuators rotatably disposed inside the handlebar and bent to form a central portion and two end portions, each of the portions being formed with a hole;

two second horseshoes provided at two bottom ends of the handlebar respectively, each of the second horseshoes being formed with a hole at the bottom end thereof for accommodating a pin inserted into the hole of one end portion of a respective corresponding one of the actuators;

two first horseshoes provided at two ends of the base plate respectively, each of the first horseshoes being formed with a hole at the top end thereof for accommodating a pin inserted into the hole of the central portion of a respective corresponding one of the actuators;

a push rod each end of the push rod being inserted with a pin for coupling the hole of the other end portion of a respective corresponding one of the actuators; and

a swing arm coupled to an end of the push rod and extended to the inside of the fire door, the swing arm being driven by a motion of the push rod coupled to the handlebar to operate the lock bolt and allow the fire door lock mechanism to enter the corresponding released or engaged state, wherein

the actuators, the first horseshoes, the second horseshoes and the push rod are configured such that when the second horseshoes receive a force from the handlebar and move downwardly accordingly, the actuators swing about the first horseshoes as pivots, to thereby induce a horizontal movement of the push rod wherein

the first opening unit located inside the fire door further comprises a lock body whose bottom has a slot that horizontally corresponds in position to a protrusion of the lock bolt mount, so as to allow the swing arm to extend into the slot and to be coupled to the protrusion of the lock bolt mount, for making the lock bolt mount ~~moved~~ move horizontally by a swing motion of the swing arm.

13 - 16. (canceled)